

## ARRAY-BASED METHODS FOR SYNTHESIZING NUCLEIC ACID MIXTURES

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### ABSTRACT OF THE DISCLOSURE

Methods for generating mixtures of nucleic acids, e.g., oligonucleotide  
primers, are provided. In the subject methods, an array is employed as template to  
generate mixtures of nucleic acids via a template driven primer extension reaction. In  
preferred embodiments, each probe on the array employed in the subject methods  
10 comprises a constant domain and a variable domain, where the constant domain is  
further characterized by having at least a recognition domain. Also provided are the  
arrays employed in the subject methods and kits for practicing the subject methods.  
The subject methods find use in a variety of applications, including the generation of  
target nucleic acids from an mRNA sample for use in hybridization assays, e.g.,  
15 differential gene expression analyses.